

Work Order ID 55515

January 19, 2010 2:29:40 PM

Page 1

Item ID: D350-748-201

Revision ID:

Item Name: Crosstube Installation, High Aft

Start Date: 1/20/2010 Start Qty: 1.00

Required Date: 2/9/2010 Req'd Qty: 1.00

Reference:

Accept

Setup Start

Stop

Cust Item ID:

Customer:

Approvals: Process Plan: MF Date: 10-1-19 Tooling: _____

QC: _____ Date: _____ SPC (Y/N): _____

Date:

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D350-748-241	Rev E
--------------	-------

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPPD350-748-201

CHG001

8/10/08/24

AF for CL 10/08/23

110

0.00



BENDING MACHINE - CROSSTUBES

CNC Bend 2

Memo

0.00

CNC Alpha 160 Bender

Bend tube as per Dwg D350-748-241 using CNC bender program D350A and Folio FT _____

(IX) MB 10-06-07

120

0.00



QC15- Crosstube Dimensional Check

QC

Memo

0.00

Quality Control

P. 10.06.09 / 8/10/09

Work Order ID 55515

January 19, 2010 2:29:40 PM



Page 2

Item ID: D350-748-201

Accept



Setup Start



Revision ID:

Stop



Item Name: Crosstube Installation, High Aft

Start Date: 1/20/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 2/9/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130



Crosstubes

Crosstubes

0.00

Memo

0.00

1-Drill Tube as per Dwg D350-748-241 Using DT8876 Drill Jigs,
Set-up drill table as per QSI 010

2-Deburr

3-Engrave Part # and Batch # as per Dwg D350-748-241

4-Remove all marks from tube within limits of D350-748-241

5- Apply a light coat of LPS3 on the interior of tube
Batch: B-109956

MB
10-06-09

AUM 10-06-09

140



QC

Quality Control

QC6- Inspect dimensions to drawing

0.00

Memo

0.00

S106610

Ⓢ

Work Order ID 55515

January 19, 2010 2:29:40 PM



Page 3

Item ID: D350-748-201

Accept



Setup Start



Revision ID:

Stop



Item Name: Crosstube Installation, High Aft

Start Date: 1/20/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 2/9/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 Outsource3	Outsource process-Cadplate per QSI017 4.1.9.1	0.00							
Outsource process - Cad plate	Memo Issue P/O: <u>12062</u> Stress relief at 375° for 5 hours Magnetic Particle Inspect per ASTM E1444 Cadium Plate per AMS-QQ-P-416B, Class 1, Type 2 Embrittle relief at 375° for 8 hours, Chromate Treat Possible Supplier: Southwest United Industries Ensure Certificate of Conformity is attached	0.00							<u>10-6-10</u> <u>W</u> P.T.O.
160 Packaging	Receive & Inspect for Damage & Mat'l Certs	0.00							
Packaging	Memo Ensure certificate of conformity is attached	0.00							<u>10/8/10</u> <u>SP</u>
170 QC	QC5- Inspect part completeness to step on W/O	0.00							
Quality Control	Memo	0.00							<u>10/08/10</u> <u>(+)</u>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D350-748-201 PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: 7 Date: 10.08.18

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR: <u>55515</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10.08.18	150	DAMAGE TO CAD PLATE DUE TO TRANSPORT ACCIDENT REF. NCR 10-308	CP 10.08.18 QS1042	Touch up CAD PLATE PER Q51 1CA-D350-748 CHAPTER 5	see next page	S 10/08/18	CP 10.08.18 QS1042	/10.08.18

NOTE: Date & initial all entries

**CERTIFICATE OF
CONFORMANCE**

**CADORATH PLATING CO. LTD.
2150 LOGAN AVENUE
WINNIPEG, MANITOBA R2J-0J1**

DATE: Jul-05-2010

CONSIGNED TO: Dart Aerospace Ltd.
1270 Aberdeen St.
Hawksbury, ON K6A 1K7

W/O #: 96456

INVOICE #: 50229

**CONTRACT OR
PURCHASE ORDER #**

12062

DESCRIPTION: SKID

QTY

1

P/N # d350-748-201

S/N # B55515

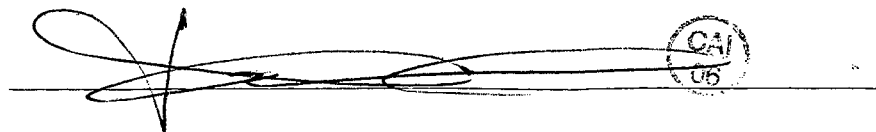
**STRESS RELIEF HEAT CHART #10-634. MPI IAW ASTM-E-1444.
CADMIUM PLATE IAW AMS-QQ-P-416B TYPE 2 YELLOW CLASS 1.
BAKE HEAT CHART # 10-686.**

8/10/06/19 . Tubes were Damaged
During transport.

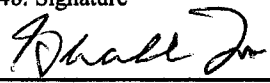
See next Page.

**CERTIFICATE: I certify that the items indicated here on have
been inspected and tested and conform to all specifications
and requirements detailed on the contract or purchase order.**

Approved Inspector:





1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form tracking No. HTV-2636 Page 1 of 1		
4. Approved organization name and address HELITRADES INC. 18 Terry Fox Drive, Vankleek Hill, Ontario, K0B 1R0, Canada					5. Work order/contract/invoice H-16610		
6. Item 1	7. Description CROSSTUBE	8. Part No. D350-748-201	9. Qty 5	10. Serial/Batch No. 55513 55516 55515 55514 59173	11. Status/work REPAIRED		
12. Remarks BRUSH CADMIUM PLATING REPAIR CARRIED OUT I.A.W. THE DART AEROSPACE ICA-D350-748 PAGE 9 OF 19 REV.1 DOCUMENTATION FOR ALL WORK PERFORMED IS AVAILABLE ON FILE UNDER HELITRADES W/O SPECIFIED IN BLOCK # 5.							
13a. Certifies that the items identified above were manufactured in conformity to: <input type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non approved design data specified in block 12.			14a. <input checked="" type="checkbox"/> CAR 571.10 Maintenance Release. <input type="checkbox"/> Other regulations specified in block 12. Certifies that, except where otherwise specified in block 12, the work identified in block 11 and described in block 12 was performed in accordance with the Canadian Aviation Regulations.				
13b. Signature		13c. Approved Organization Number		14b. Signature 		14c. Approved Organization Number AMO 3/86	
13d. Name		13e. Date (dd/mm/yyyy)		14d. Name GERALD TOM		14e. Date (dd/mm/yyyy) 17-Aug-10	
<p>"This certificate does not constitute authority to install. Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified. Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown."</p>							

(Previously form 24-0078)

Work Order ID 55515

January 19, 2010 2:29:40 PM



Page 4

Item ID: D350-748-201

Accept



Setup Start



Revision ID:

Stop



Item Name: Crosstube Installation, High Aft

Start Date: 1/20/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 2/9/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 	SprayPaint	0.00							
SprayPaint	Memo	0.00							
Spray Painting	1-Prime inside crosstube as per QSI 005 4.2 2-Paint Outside of Tube as per Dart QSI 005 4.2								
190 	QC14- Inspect Spray Paint	0.00							
QC	Memo	0.00							
Quality Control	Then, Wrap in plastic bag to protect from scratches								
200 	Crosstubes	0.00							
Crosstubes	Memo	0.00							
Crosstubes	1-Install Ground wire Insert, then insert screw and washer 2-Install Abraison strips as per Dwg D350-748-241 & QSI 035. 3-Install supports Using Dt8876 as per Dwg D350-748-241, Torque to 60-80 IN-LBS								

85 10-06-20

5 10/06/23

70

85 10-06-23

Work Order ID 55515

January 19, 2010 2:29:40 PM



Page 5

Item ID: D350-748-201

Accept



Setup Start



Revision ID:

Stop



Item Name: Crosstube Installation, High Aft

Start Date: 1/20/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 2/9/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

8/10/08/23

XL

Quality Control

220

Pick Kit

0.00



Packaging

Memo

0.00

10/8/23sf

Packaging

230

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

8/10/08/24 / ml 1008.24

XL

Quality Control

Work Order ID 55515

January 19, 2010 2:29:40 PM



Page 6

Item ID: D350-748-201

Accept



Setup Start



Revision ID:

Stop



Item Name: Crosstube Installation, High Aft

Start Date: 1/20/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 2/9/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240 	Packaging	0.00							
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPPD350-748-201 Location: <u>102</u> PPP Rev: <u>A</u>								
250 	* QC21- Final Inspection - Work Order Release	0.00							
QC	Memo	0.00							
Quality Control									

10/8/24 SP

10/08/25 AJ

CL 10/8/25

Picklist Print

January 19, 2010 2:29:40 PM

Page 1

Work Order ID: 55515

Parent Item: D350-748-201

Parent Item Name: Crosstube Installation, High Aft

Comments: IPP Rev: A New Issue 06-07-05 JLM
 IPP Rev: B Update qty of MS21042L5 06-09-12 KJ
 IPP Rev C Combined manufacturing 08.04.02 EC verified by: DD
 IPP Rev:D 08-06-24 revD as per dwg DD verified by:EC

Start Date: 1/20/2010

Required Date: 2/9/2010

Start Qty: 1.00

Required Qty: 1.00

D350-748-241TRN

Manufactured No

110

Each

4.0000

1.0000



Crosstube Turning Detail

B-55375 MB 10-06-07

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

FG

4

47167

1

47170

1

47171

1

47172

1

ALS4-1032-225

Purchased

No

200

Each

6,686.000

1.0000



Insert

M 110768

85 10-06-23

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

6686

107441

16

110768

6670

NAS 1149003635 as per QSL 12

AN960JD10

Purchased

No

200

Each

0.0000

1.0000



Washer

M 115107

85 10-06-23

Picklist Print

January 19, 2010 2:29:40 PM

Page 2

Work Order ID: 55515



Parent Item: D350-748-201



Parent Item Name: Crosstube Installation, High Aft

Start Date: 1/20/2010

Required Date: 2/9/2010

Comments: IPP Rev: A New Issue 06-07-05 JLM
 IPP Rev: B Update qty of MS21042L5 06-09-12 KJ
 IPP Rev C Combined manufacturing 08.04.02 EC verified by: DD
 IPP Rev:D 08-06-24 revD as per dwg DD verified by:EC

Start Qty: 1.00

Required Qty: 1.00

4

D2856-400

Manufactured No

200 f

290.3921 1.2432



Abraison Strip

B56626



RT 10-08-23

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST403

290.3920842

50593

141.312084

52563

149.08

1- cut as per dwg D2856

D3502-1

Manufactured No

200 Each

83.0000 2.0000



Support



RT 10-08-23

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

5

41603

2

42968

2

47120

1

Main Warehouse

ST107

40

52903

40

Main Warehouse

ST168

38

50287

38

x2

January 19, 2010 2:29:40 PM

Shop Packet Print

Page 2

Picklist Print

January 19, 2010 2:29:40 PM

Page 3

Work Order ID: 55515



Parent Item: D350-748-201



Parent Item Name: Crosstube Installation, High Aft

Start Date: 1/20/2010

Required Date: 2/9/2010

Comments: IPP Rev: A New Issue 06-07-05 JLM
 IPP Rev: B Update qty of MS21042L5 06-09-12 KJ
 IPP Rev C Combined manufacturing 08.04.02 EC verified by: DD
 IPP Rev:D 08-06-24 revD as per dwg DD verified by:EC

Start Qty: 1.00

Required Qty: 1.00

MS21920-20

Purchased No

200

Each

115.3000 2.0000



Clamp (per MIL-DTL-8783C)

M11468Z



25 10-08-23

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

115.3

103478

2

106484

12

109269

9.3

110536

10

112307

32

112624

39

112793

11

MS27039-1-10

Purchased No

200

Each

203.0000 1.0000



Screw



25 10-08-23

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

203

112794

89

112828

14

112940

100

January 19, 2010 2:29:40 PM

Shop Packet Print

Page 3

Picklist Print

January 19, 2010 2:29:40 PM

Page 4

Work Order ID: 55515



Parent Item: D350-748-201



Parent Item Name: Crosstube Installation, High Aft

Start Date: 1/20/2010

Required Date: 2/9/2010

Comments: IPP Rev: A New Issue 06-07-05 JLM
 IPP Rev: B Update qty of MS21042L5 06-09-12 KJ
 IPP Rev C Combined manufacturing 08.04.02 EC verified by: DD
 IPP Rev:D 08-06-24 revD as per dwg DD verified by:EC

Start Qty: 1.00

Required Qty: 1.00

AN4-41A 7



Purchased No

220 Each

242.0000 8.0000



10/8/03 sl

Bolt

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

242

105940

4

110363

16

110731

50

111424

50

112082

22

113359

100

AN4-6A



Purchased No

220 Each

1,559.000 16.0000



10/8/03 sp

Bolt

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1559

112314

159

112641

100

112720

100

112829

300

112933

300

113149

600

16

January 19, 2010 2:29:40 PM

Shop Packet Print

Page 4

Picklist Print

January 19, 2010 2:29:40 PM

Work Order ID: 55515

Parent Item: D350-748-201

Parent Item Name: Crosstube Installation, High Aft

Start Date: 1/20/2010

Required Date: 2/9/2010

Comments: IPP Rev: A New Issue 06-07-05 JLM
 IPP Rev: B Update qty of MS21042L5 06-09-12 KJ
 IPP Rev C Combined manufacturing 08.04.02 EC verified by: DD
 IPP Rev:D 08-06-24 revD as per dwg DD verified by:EC

Start Qty: 1.00

Required Qty: 1.00

AN5-32A



Bolt

Purchased No

220 Each

175.0000 4.0000



M114056 10/8/23 SP

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

175

106242

3

106519

4

110363

17

112805

1

112933

50

113121

100

AN960JD416



Washer

Purchased No

220 Each

149.0000 32.0000



M115000 10/8/23 SP

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

149

112314

149

16941

0

AN960JD516



Washer

Purchased No

220 Each

0.0000 8.0000



M114142 10/8/23 SP

Picklist Print

January 19, 2010 2:29:40 PM

Page 6

Work Order ID: 55515



Parent Item: D350-748-201



Parent Item Name: Crosstube Installation, High Aft

Start Date: 1/20/2010

Required Date: 2/9/2010

Comments:

IPP Rev: A New Issue 06-07-05 JLM
 IPP Rev: B Update qty of MS21042L5 06-09-12 KJ
 IPP Rev C Combined manufacturing 08.04.02 EC verified by: DD
 IPP Rev:D 08-06-24 revD as per dwg DD verified by:EC

Start Qty: 1.00

Required Qty: 1.00



Saddle

Manufactured No

220 Each

46.0000



BS9120 10/8/03
 BS9422 SP

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

46

47119

12

47350

5

52326

20

53792

9



Bushing

Manufactured No

220 Each

523.0000 16.0000



10/8/03 SP

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

523

45402

19

45918

200

48268

204

53779

100

January 19, 2010 2:29:40 PM

Shop Packet Print

Page 6

Picklist Print

January 19, 2010 2:29:40 PM

Page 7

Work Order ID: 55515

Parent Item: D350-748-201

Parent Item Name: Crosstube Installation, High Aft

Start Date: 1/20/2010

Required Date: 2/9/2010

Comments: IPP Rev: A New Issue 06-07-05 JLM
 IPP Rev: B Update qty of MS21042L5 06-09-12 KJ
 IPP Rev C Combined manufacturing 08.04.02 EC verified by: DD
 IPP Rev:D 08-06-24 revD as per dwg DD verified by:EC

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased No

220 Each

3,697.000 24.0000



Nut

11147.84 10/8/23 SP

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

3697

102552

6

104248

6

110507

184

111827

2501

113422

1000

15924

0

MS21042L5

Purchased No

220 Each

550.0000 4.0000



Nut

11148/3 10/8/23 SP

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

550

110382

10

111636

1

112314

39

113523

300

113537

200

January 19, 2010 2:29:40 PM

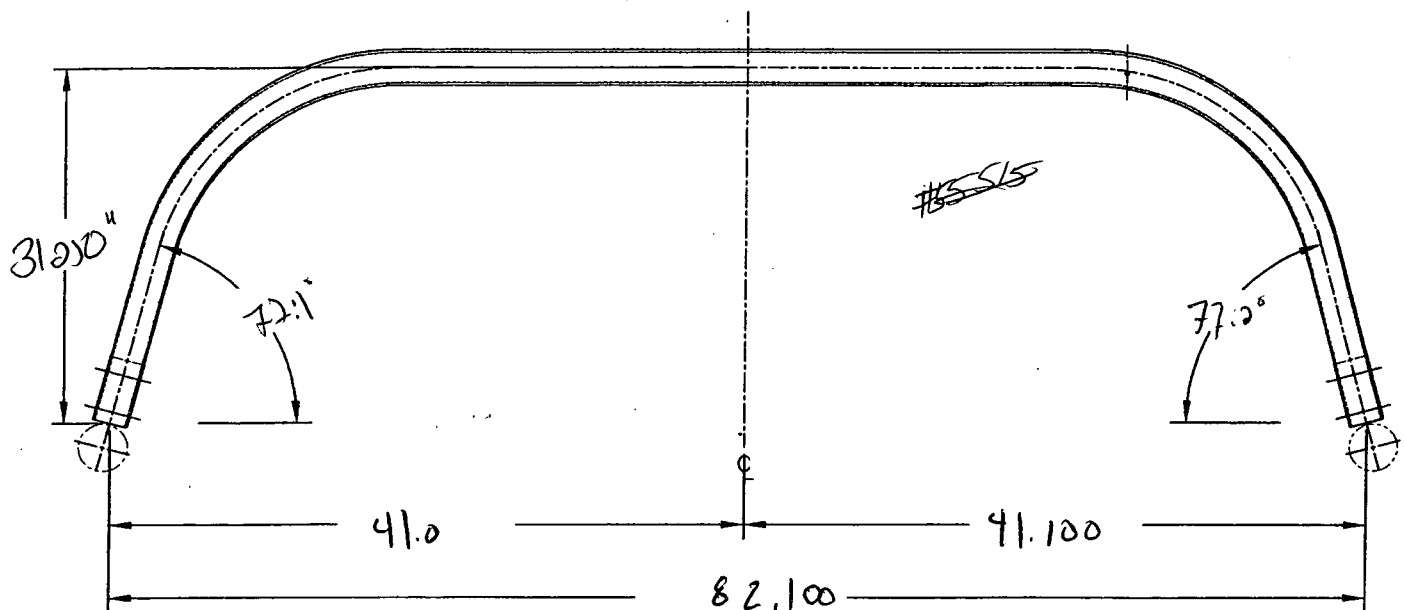
Shop Packet Print

Page 7

DART AEROSPACE LTD		Work Order:	55515
Description: Crosstube High Aft (AS350/355)		Part Number:	D350-748-201
Inspection Dwg: D350-748-241	Rev: D E	Page 1 of 1	

E 10.01.19

Required Dimension	Min	Max
Height	31.22	31.48
1/2 Span	40.77	41.03
Angle	75	77
Total Span	81.54	82.06



Comments
twist is .346"
OK. CP 10.06.09

QC15 Inspection	8
Date	10/06/09

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Item	Qty	Part Number	Description
	-241		
1	X	D350-748-241	CROSSTUBE ASSEMBLY (AS 350/355 HI AFT)
2	1	D6018-125	CROSSTUBE
3	2	D3502-1	SUPPORT
4	2	D2856-400-710	ABRASION STRIP
5	1	AELS-1032-225	INSERT
6	1	NAS1149D0363J	WASHER (OR AN960JD10)
7	2	MS21920-20	CLAMP (PER DART SPEC. M-MS21920-20)
8	1	MS27039-1-10	SCREW

#55515

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6018-125
FINISHED LENGTH = 122.700±0.06
- 2) FINISH: MAGNETIC PARTICLE INSPECT PER DART QSI 038 4.2
CADMIUM PLATE PER AMS-QQ-P-416B, CLASS 1, TYPE II
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D350-748-241" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 29.85 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE, EXCEPT FOR Ø0.297 HOLE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT ALL EDGES FROM MACHINING LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH. NOTE: ALL HOLES ARE DRILLED AFTER BENDING.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 7 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) HEAT TREAT TO MIN. 180 KSI PER MIL-T-6736 OR AMS 2759-1C AFTER TURNING.
- 12) INSTALL D2856-400-710 ABRASION STRIPS WITH A GAP ON BOTTOM SIDE OF CROSSTUBE, CENTERED OPPOSITE D3502-1 SUPPORT, PER QSI 035.
- 13) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE. WHEN DRILLING HOLES EXTREME CARE MUST BE TAKEN AND CAREFUL DEBURRING PERFORMED TO ENSURE A CLEAN HOLE WITH NO CRACKING/CHIPPING/GROOVES.
- 14) TORQUE CLAMPS 60 TO 80 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

RELEASED
2009-10-29

E	REVISE GENERAL NOTES; UPDATE TO CURRENT STANDARDS; RELOCATED FLAG #6 PER PAR 08-046 (ZN A8-3); ADD TOLERANCES (ZN C6-3, D2-3)	RF	09.09.30
D	MAG. PARTICLE AND CAD PLATE AS MFD.	CP	06.10.31
C	ADD CAD PLATING	CP	06.08.14
B	ADD D6018-125 & PRIME AND PAINT	CP	06.06.30
A	NEW ISSUE	CP	06.03.31
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF	DRAWING NO.	REV. E
CHECKED	RF	D350-748-241	SHEET 1 OF 4
MFG. APPR.	RF	TITLE	SCALE
APPROVED	RF	CROSSTUBE (AS 350/355 HI AFT)	NTS
DE APPR.	RF	COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	09.09.30		

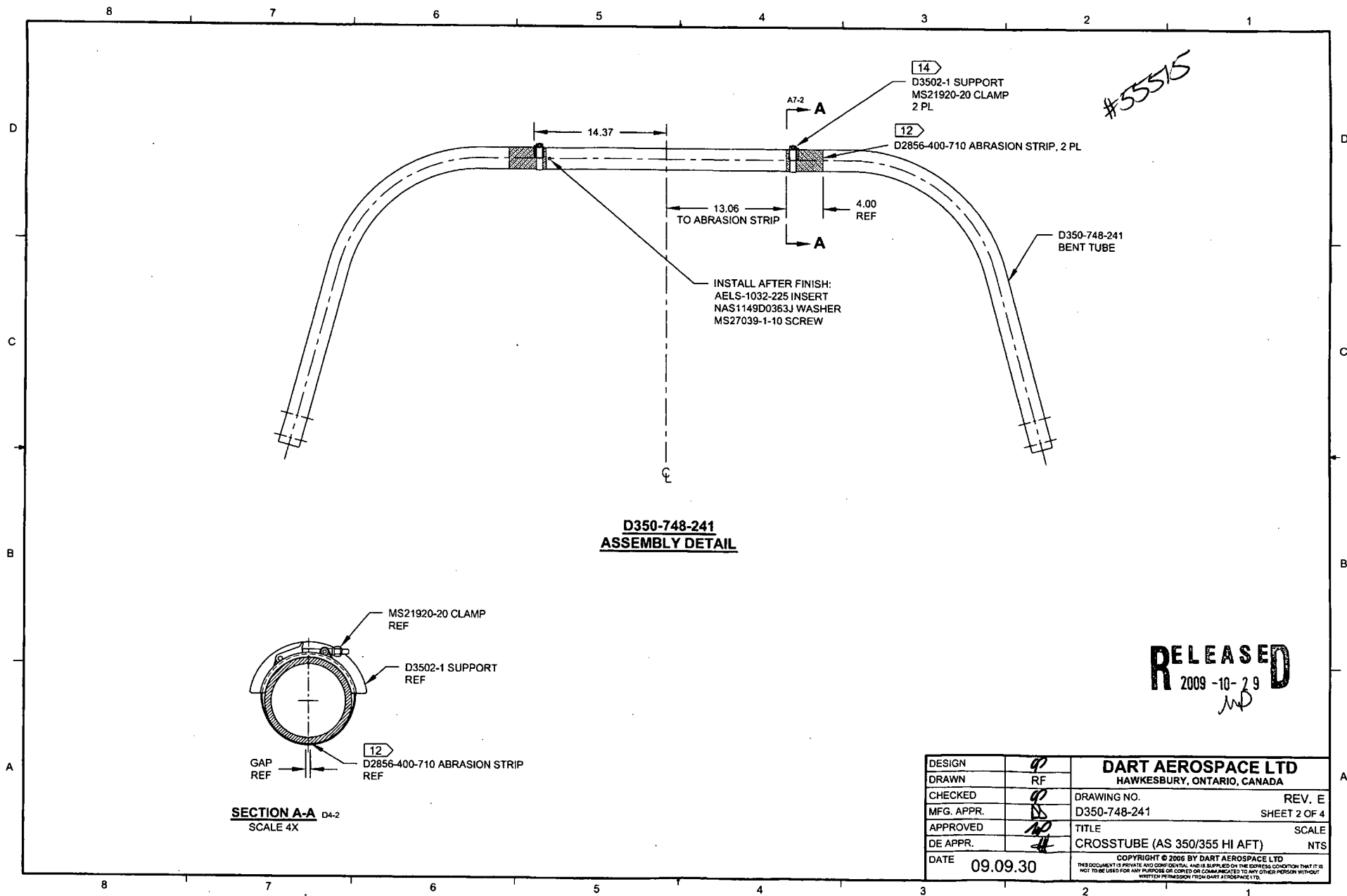
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

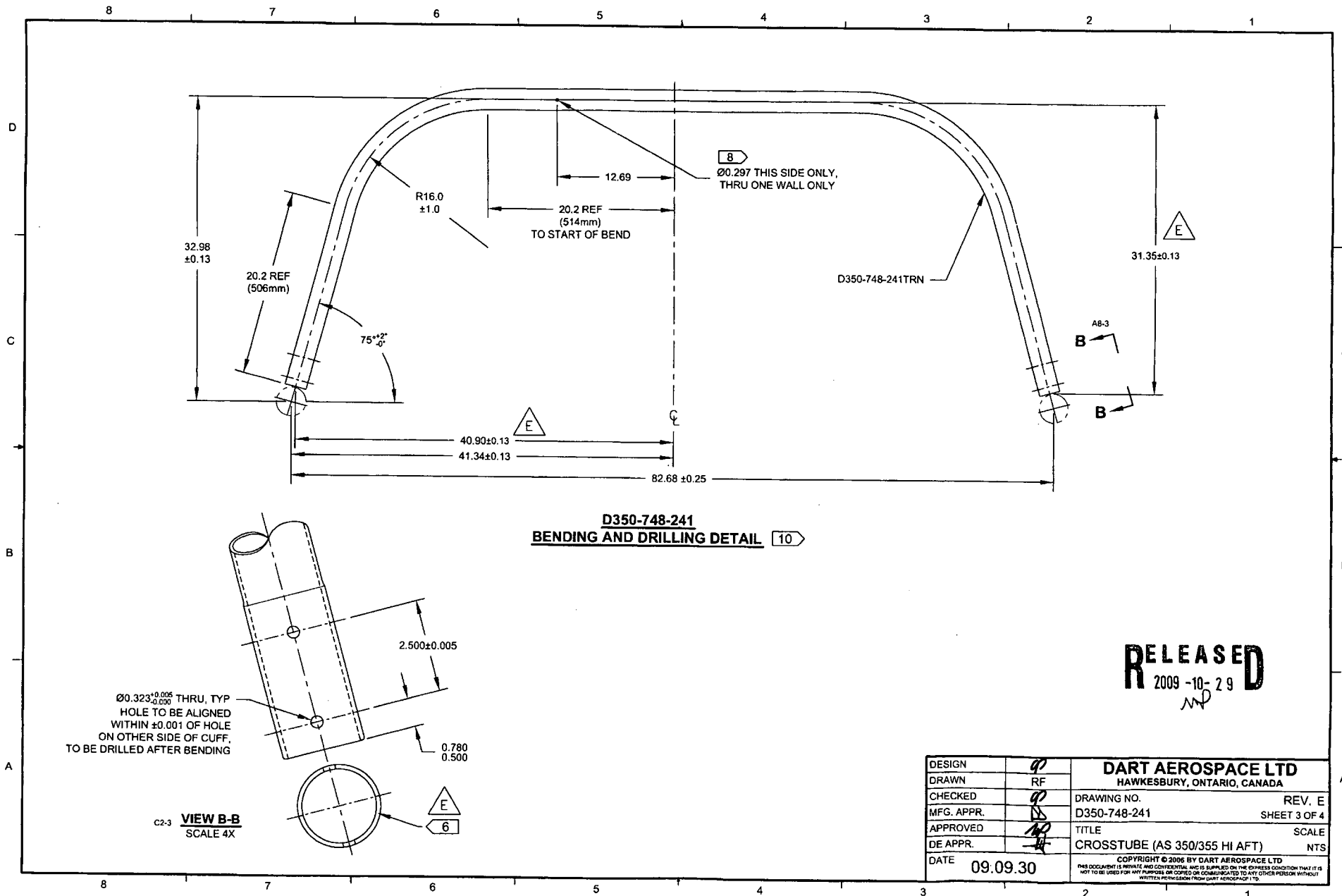
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

#55515



D350-748-241
BENDING AND DRILLING DETAIL 10

RELEASED
2009-10-29

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. E
MFG. APPR.	RF	D350-748-241	SHEET 3 OF 4
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	CROSSTUBE (AS 350/355 HI AFT)	NTS
DATE	09.09.30	COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

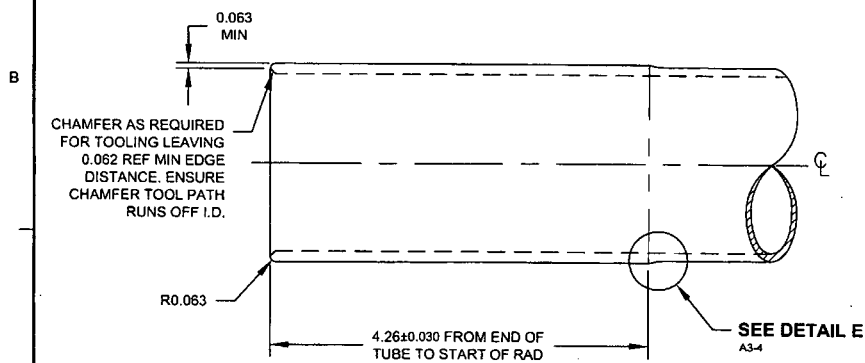
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

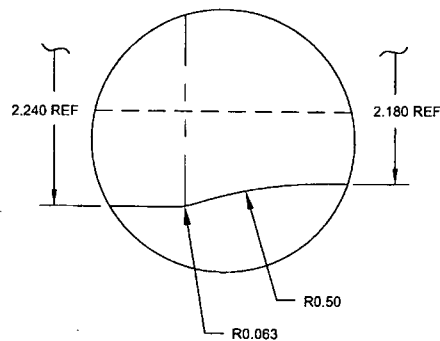
NOTE: Date & initial all entries

Technical drawing of a 122.70 inch long pipe assembly. The drawing shows a longitudinal view of the pipe with various diameters, transitions, and stock sections. The total length is 122.70 ± 0.06 inches. The pipe has a constant outer diameter (O.D.) of 2.000 ± 0.007 inches and a mean inner diameter (I.D.) of 2.000 ± 0.018 inches. The pipe is divided into sections with different diameters and transitions. The diameters are: 2.240 ± 0.005 inches (0.000 inches from the left end), 2.180 ± 0.005 inches (4.44 inches from the left end), 2.208 ± 0.005 inches (12.41 inches from the left end), 2.234 ± 0.005 inches (17.50 inches from the left end), 2.253 ± 0.005 inches (22.24 inches from the left end), 2.272 ± 0.005 inches (28.00 inches from the left end), and 2.299 inches (34.00 inches from the left end). The pipe has three R100 transitions. The stock section has a minimum wall thickness of 0.130 inches. The drawing includes callouts for 'CONST. O.D.', 'UNIFORM TAPER', 'R100 TRANSITION', 'CONST. O.D.', '2.299 STOCK, REF MIN WALL 0.130', '2.299 STOCK, REF', and 'SEE DETAIL D'. The drawing also includes a 'TOTAL LENGTH' callout of 122.70 ± 0.06 inches and a 'SYM' symbol.

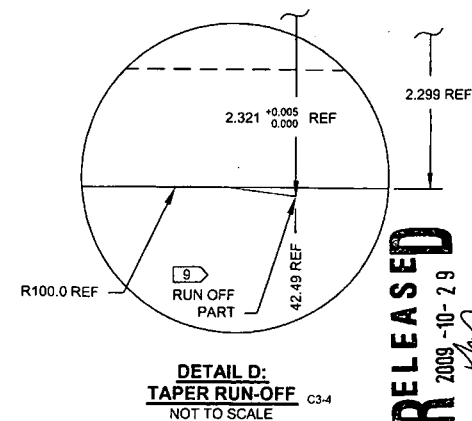
D350-748-241TRN
TURNING DETAIL



DETAIL C:
CROSSTUBE CUFF C8-4
SCALE 3X



DETAIL E:
CUFF TRANSITION A5-4
NOT TO SCALE



RELEASED
2009-10-29

DESIGN	90	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D350-748-241 TITLE CROSSTUBE (AS 350/355 HI AFT) COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATELY OWNED AND IS SUPPLEMENTED BY THE INFORMATION THAT IT CANNOT BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD.	REV. B
DRAWN	RF		SHEET 4 OF 4
CHECKED	90		SCALE
MFG. APPR.	DS		NT
APPROVED	140		
DE APPR.	140		
DATE 09.09.30			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries